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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/672,406 | 09/26/2003 | Ying-Lang Chuang | 3304.2.89 | 9139 |
| 21552 | 7590 | 10/21/2004 | EXAMINER | |
| MADSON & METCALF GATEWAY TOWER WEST SUITE 900 15 WEST SOUTH TEMPLE SALT LAKE CITY, UT 84101 | | | TON, MY TRANG | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2816 | |

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,406

Applicant(s)

CHUANG, YING-LANG

Examiner

My-Trang N. Ton

Art Unit

2816

[Signature]

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-24 and 26-31 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-15 and 25 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "said selection-signal generating circuit" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 9-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Chapman et al (U.S Patent No. 5,789,958).

Chapman et al disclose in Figs. 4-9 a timing signal generator including:

providing a plurality of source signals (PH[0]-PH[15], PHASE, BANK, ENABLE), every adjacent two of which have a phase difference of a certain clock unit;

generating a first and second output signals (OUTA, OUTB) at a first and a second time points based on said plurality of source signals (PH[0]-PH[15], PHASE, BANK, ENABLE); and

Art Unit: 2816

processing the first and the second output signals (OUTA, OUTB) by a logic operation (28) to obtain a delay signal as recited in claim 1.

Regarding claim 2: the plurality of source signals (PH[0]-PH[15]) are generated from a high-frequency signal by a phase-locked loop device (26).

The plurality of source signals (PH[0]-PH[15], PHASE, BANK, ENABLE) are a series of increasing lagging (or leading) signals as recited in claims 3-4.

The logic operation is an XOR operation (28) as recited in claim 5.

Regarding claim 6:

deriving a first and a second signal groups (PH[0]-PH[7], PHASE, BANK, ENABLE and PH[8]-PH[15], PHASE, BANK, ENABLE) from the plurality of source signals (PH[0]-PH[15], PHASE, BANK, ENABLE);

selecting a signal from the first signal group (PH[0]-PH[7], PHASE, BANK, ENABLE) at said first time point as the first output signal (OUTA); and

selecting a signal from the second signal group (PH[8]-PH[15], PHASE, BANK, ENABLE) at the second time point as the second output signal (OUTB).

The first and second signal groups (PH[0]-PH[15], PHASE, BANK, ENABLE) are obtained by duplicating the plurality of source signals as recited in claim 7.

The first output signal (OUTA) generated based on the same first edges of selected two of said plurality of source signals (PH[0]-PH[15], PHASE, BANK, ENABLE), and the second output signal (OUTB) is generated based on the same second edges of selected two of the plurality of source signals (PH[0]-PH[15], PHASE, BANK, ENABLE) as recited in claim 9.

Art Unit: 2816

The limitations recited in claims 10-12 and 15 are seen in Fig. 6.

The limitations recited in claims 13-14 are similarly rejected as claims 6 and 9.

Allowable Subject Matter

Claims 8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16-24 and 26-31 are allowable over the prior art of record. None of the prior art disclosed or suggested to show the particular structure and/or the particular operation recited in these claims namely: the combination of "a source-signal generator ... of a certain clock unit", "a source-signal selector ... in response to a first and a second clock signals as a first and a second output signals, respectively" and "a logic operator" as recited in claim 16.

Claim 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2816

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'My-Trang Nuton', with a stylized, flowing script.

MY-TRANG NUTON
PRIMARY EXAMINER

October 12, 2004